

## VU-160XR VHF/UHF/FM Antenna with Matching Transformer

OWNER'S MANUAL — Please read before using this equipment.

Your RadioShack VHF/UHF/FM Antenna performs better than standard antennas because of its special design features.

**UHF Bowtie** — delivers more of the UHF signal to your TV. Since UHF signals are more difficult to receive than VHF signals, this antenna gives UHF signals the extra boost they need.

**VHF/UHF Isolation Network** — prevents the two types of TV signals from interfering with each other. This results in cleaner signals and a better picture on your TV.

### BEFORE YOU BEGIN

Before you begin installation, read this manual and the separate Consumer Product Safety Commission information sheet. For your safety and convenience, plan each step of the installation and purchase the necessary hardware in advance. The hardware required and the order in which you perform the steps depend on the mounting and connection method you choose.

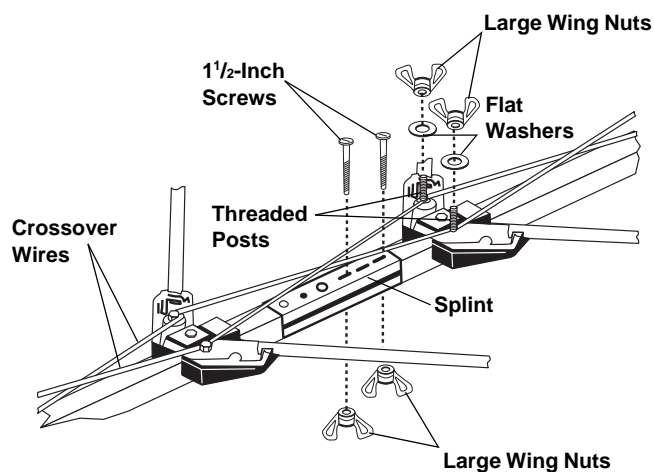
**Warning:** When you install your antenna, use extreme caution. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the power line, contact with the antenna, mast, cable, or guy wires can cause electrocution and death. Call the power company to remove the antenna. *Do not attempt to remove it yourself.*

### ASSEMBLING THE ANTENNA

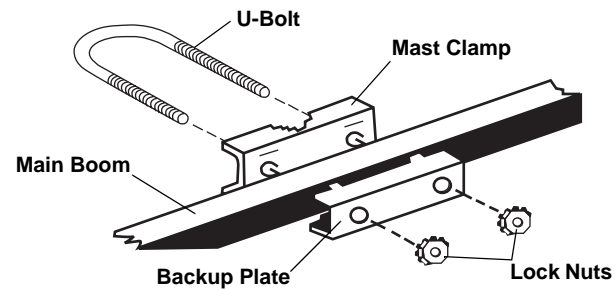
Assemble the entire antenna on the ground.

1. Use the supplied hardware to assemble the two main boom sections, as shown. If necessary, lift one end of the main boom so the crossover wires reach the threaded posts.

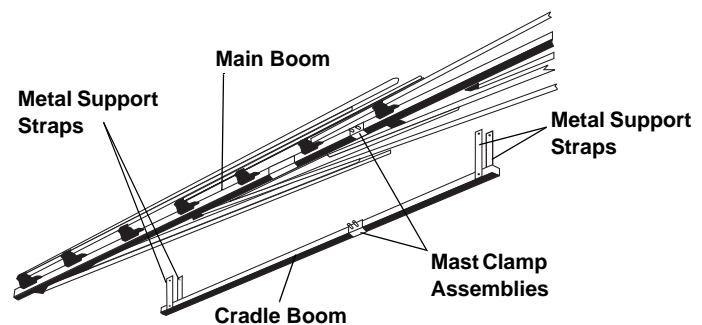
**Note:** To access slots or holes during assembly, move the antenna's elements out of the way as needed.



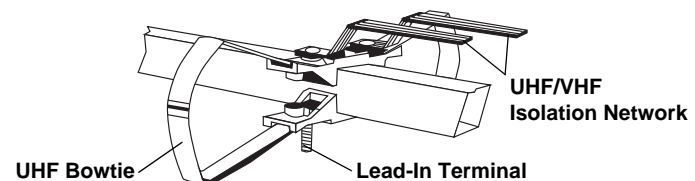
2. Use the supplied hardware to loosely attach one of the supplied mast clamp assemblies to the main boom, as shown.



3. Attach the other mast clamp assembly to the cradle boom. (Be sure it faces the same direction as the main boom's mast clamp assembly, shown above.) Fold out the two sets of metal support straps on the cradle boom and attach them to the corresponding holes on the main boom using the two supplied 1 1/2-inch screws and large wing nuts.



4. Press the supplied large end plugs into the main boom and the cradle boom.
5. Pull the UHF bowtie's two halves away from the main boom until they lock into place. Then slide each half's unattached end over one of the antenna's lead-in terminals (one for each half of the UHF bowtie on each side of the boom).



**Note:** Both sections of the UHF/VHF isolation network should remain parallel to the main boom.

### CONNECTING LEAD-IN CABLE TO THE ANTENNA

We recommend RG-6 cable and, if you prepare your own cable, a quality F-connector. You can also use 300-ohm flat, twin-lead cable. (RadioShack carries a variety of suitable cables and connectors.)

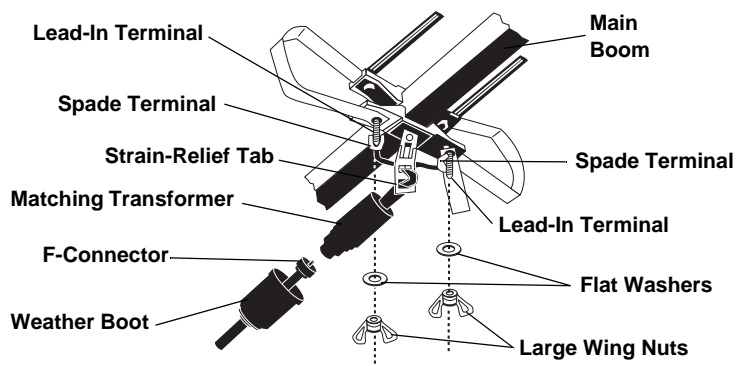
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**Note:** If you prepare your own coaxial cable, be sure to slide the supplied matching transformer's weather boot onto the cable before you attach the F-connector.

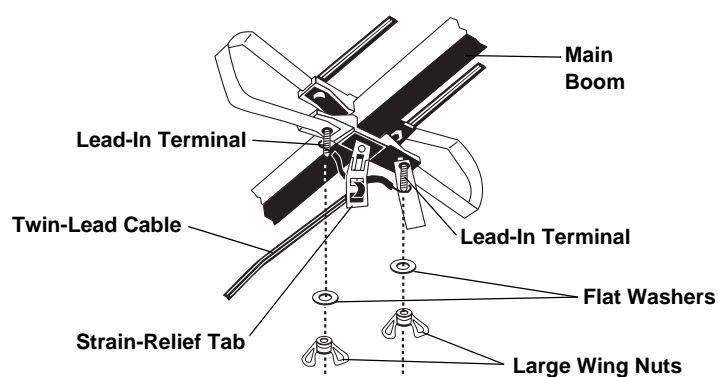
### Using Coaxial Cable



To connect coaxial cable to your antenna:

1. Thread the supplied matching transformer's spade terminals through the antenna's strain-relief tab.
2. Slide the spade terminals around the antenna's lead-in terminals (on both sides of the boom), then secure them with the supplied flat washers and large wing nuts.
3. Screw the cable's F-connector onto the matching transformer.
4. Slip the weather boot over the connection. If you use a rebuilt cable without a weather boot, cover the connection with weather-resistant tape.

### Using Twin-Lead Cable



To connect flat, twin-lead cable to your antenna:

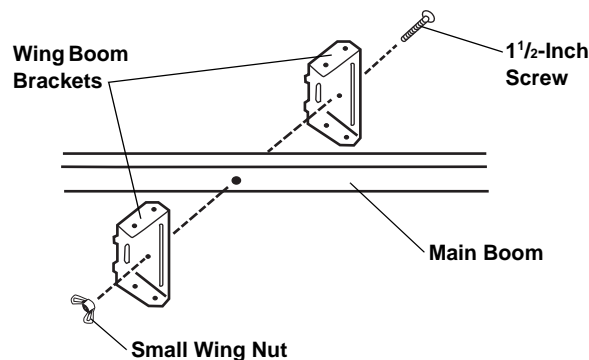
1. Split one end of the twin-lead cable for a length of about 3 inches. Then strip about 1/2 inch of insulation from both leads.
2. Thread the stripped leads through the antenna's strain-relief tab.
3. Wrap each lead around one of the antenna's lead-in terminals (on both sides of the boom). Be sure there is enough slack between the strain-relief tab and the antenna terminals to prevent stress on the cable or the terminals.
4. Secure the leads with the supplied flat washers and large wing nuts.

### UNFOLDING THE ANTENNA'S ELEMENTS

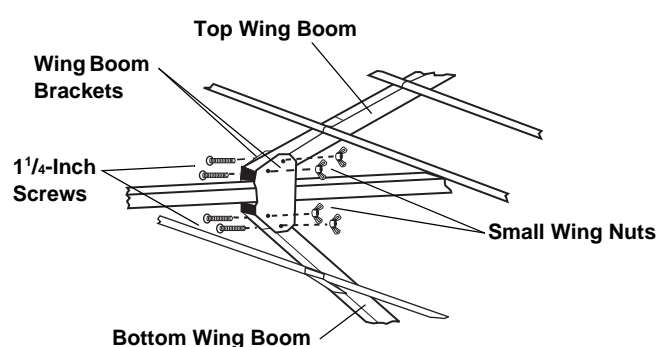
1. Hold the main boom's elements near the pivot points and pull them away from the boom until they snap into the self-locking plastic support insulators.

**Caution:** To avoid damage to the elements, do not pull them near their outer ends. Once the elements are locked into position, do not attempt to unlock them. Doing so might break the self-locking tabs.

2. Hold each wing boom and turn its elements until they snap squarely into place (perpendicular to the boom).
3. Press the supplied small end plugs into the wing booms.
4. Bolt the triangular wing boom brackets onto the main boom using the supplied 1 1/2-inch screw and small wing nut, as shown.



5. Insert the top and bottom wing booms into the wing boom brackets. Secure them with the four supplied 1 1/4-inch screws and small wing nuts, as shown.



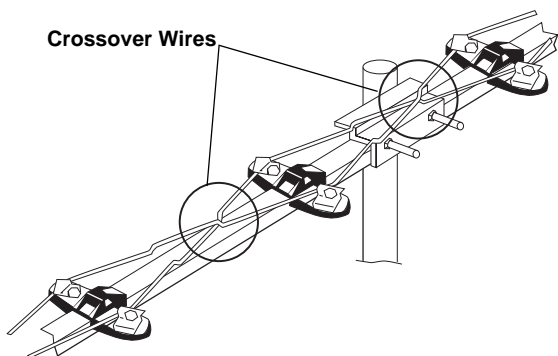
### ATTACHING TO THE MAST

We recommend that you enlist the help of another person before you put up the mast or attach your antenna to it. How you set up your mast depends on your specific installation. Refer to the separate Consumer Product Safety Commission information sheet for recommended methods.

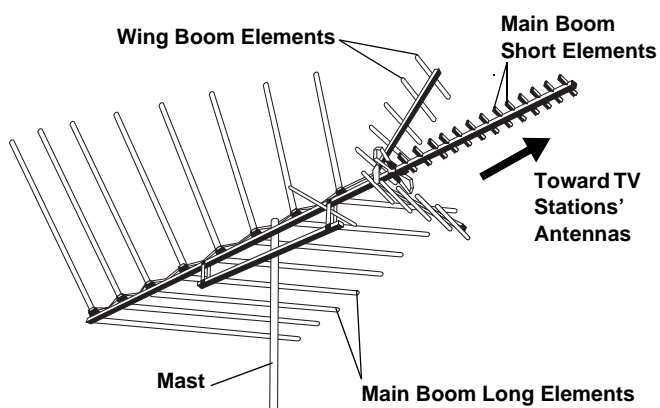
1. Slide the antenna's mast clamp assembly over the end of the mast.
2. Tighten the mast clamp assembly's lock nuts to hold the antenna in place. Do not overtighten the lock nuts.

**Caution:** The crossover wires must not touch the antenna boom, the mast, or each other. If necessary, carefully bend

the crossover wires to provide at least 1/2 inch of clearance between parts.



3. Set up the mast, then rotate it so the antenna's shorter elements point toward the broadcast antennas of the stations you want to receive.



## ROUTING THE CABLE TO YOUR TV/VCR/FM RECEIVER

If you use coaxial cable:

- Use plastic tape or mast standoff insulators to secure the coaxial cable to the mast at about 3-foot intervals. Continue down the roof and the side of the house using roof and wall standoff insulators.
- Use coaxial cable nail-in clips every few feet to secure the cable between the mast and where the cable enters the house.
- Use a 75-ohm grounding block at the point where the coaxial cable enters the house. Read the Consumer Product Safety Commission sheet for grounding instructions.
- Use a wall-through lead-in tube (not supplied) to neatly route the coaxial cable through walls.

If you use twin-lead cable:

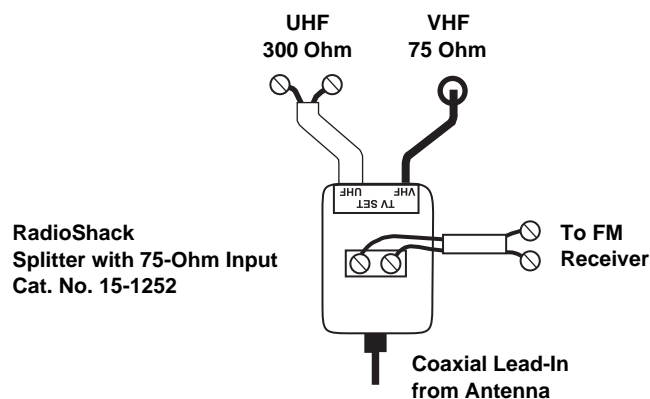
- Be sure the twin-lead cable remains at least 4 inches away from all metal surfaces.
- Use standoff insulators about every 4 feet. Twist the twin-lead cable about three turns between standoff insulators.
- Read the separate Consumer Product Safety Commission sheet for grounding instructions.

## CONNECTING TO YOUR TV/VCR AND FM RECEIVER

Connect the antenna's lead-in cable to your TV/VCR and FM receiver's antenna terminals according to the type of cable you used. RadioShack carries a variety of splitters. Choose one that best suits your needs. Below are some sample connections.

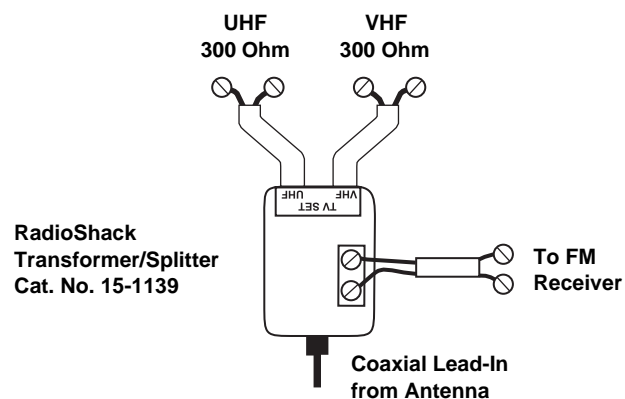
Make connections as shown if you have:

- Coaxial antenna lead-in
- Twin-lead UHF terminals
- Coaxial VHF terminal
- Twin-lead FM antenna terminals



Make connections as shown if you have:

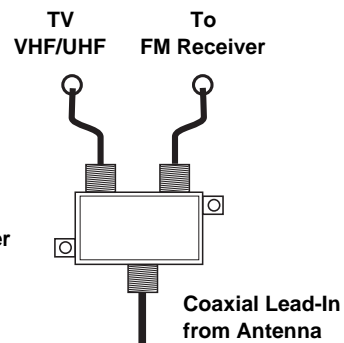
- Coaxial antenna lead-in
- Twin-lead UHF terminals
- Twin-lead VHF terminals
- Twin-lead FM antenna terminals



Make connections as shown if you have:

- Coaxial antenna lead-in
- Combined coaxial VHF/UHF terminal
- Coaxial FM antenna terminal

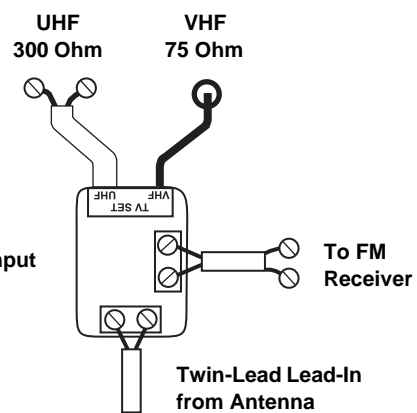
**RadioShack  
Hybrid Splitter/Combiner  
Cat. No. 15-1141**



Make connections as shown if you have:

- Twin-lead antenna lead-in
- Twin-lead UHF terminals
- Coaxial VHF terminal
- Twin-lead FM antenna terminals

**RadioShack  
Splitter with 300-Ohm Input  
Cat. No. 15-1251**



#### Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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